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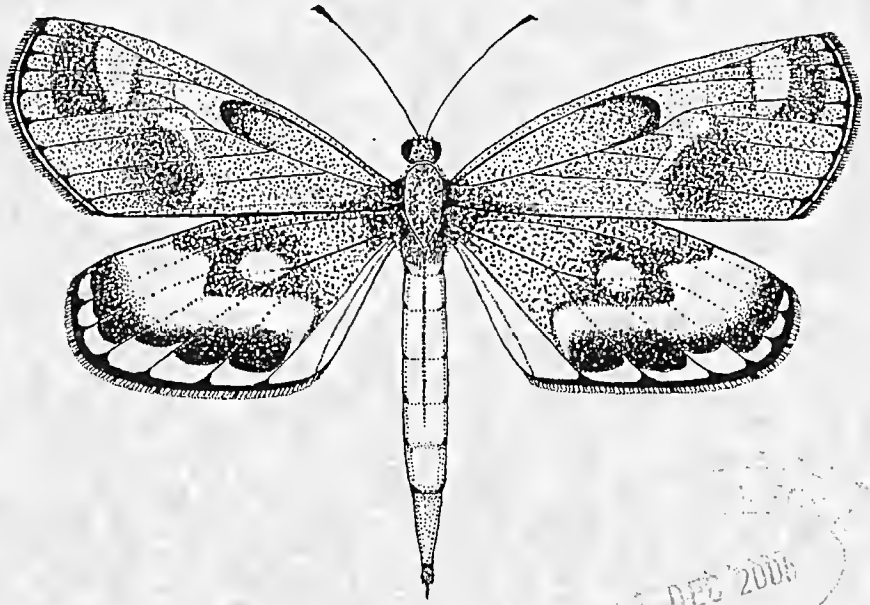

1 DEC 2005

News Bulletin of The Entomological Society of Victoria Inc.

THE ENTOMOLOGICAL SOCIETY OF VICTORIA (Inc)

MEMBERSHIP

Any person with an interest in entomology shall be eligible for Ordinary membership. Members of the Society include professional, amateur and student entomologists, all of whom receive the Society's News Bulletin, the Victorian Entomologist.

OBJECTIVES

The aims of the Society are:

(a) to stimulate the scientific study and discussion of all aspects of entomology,
(b) to gather, disseminate and record knowledge of all identifiable Australian insect species,
(c) to compile a comprehensive list of all Victorian insect species,
(d) to bring together in a congenial but scientific atmosphere all persons interested in entomology.

MEETINGS

The Society's meetings are held at 'the Resource Centre', Museum Victoria, Carlton Gardens, Melway reference Map 43 K5 at 8 p.m. on the third Friday of even months, with the exception of the December meeting which is held on the second Friday. Lectures by guest speakers or members are a feature of many meetings at which there is ample opportunity for informal discussion between members with similar interests. Forums are also conducted by members on their own particular interest so that others may participate in discussions.

SUBSCRIPTIONS

Ordinary Member	$20.00 (overseas members $22)
Country Member	$16.00 (Over 100 km from GPO Melbourne)
Student Member	$12.00
Associate Member	$ 5.00 (No News Bulletin)

Associate Members, resident at the same address as, and being immediate relatives of an ordinary Member, do not automatically receive the Society's publications but in all other respects rank as ordinary Members.

LIFE MEMBERS: P. Carwardine, Dr. R. Field, D. Holmes, Dr. T. New, Dr. K. Walker.

Cover design by Alan Hyman.

Cover illustration: The pale Sun Moth, *Synemon selene* Klug, is an endangered species restricted to perennial grassland dominated by *Austrodanthonia* in Western Victoria. It is now extinct in SA, and was presumed extinct in Vic. until its rediscovery, in February 1991, by the late Frank Noelker and Fabian Douglas. The Victorian Populations are parthenogenetic with all specimens comprising females, a most unusual trait in the Castniidae. Illustration by Michael F. Braby.

Captain Billinghurst's Victorian Dragonflies

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In the summer of 1898 Captain Farncombe L. Billinghurst collected dragonflies in Alexandra and sent them to M. René Martin in France. Martin replied with some notes to Billinghurst on the then current classification within the Order and Billinghurst (1900) translated into English those parts which referred to the Australian fauna. Martin (1901) also published a list of all known Australian dragonflies with descriptions of new species. Billinghurst (1902) used Martin's identifications and published works to list the 41 species which he had collected from Alexandra together with brief remarks on their habits and appearance.

The holotype of *Hemicordulia novaehollandiae* (Selys, 1871) could not be traced nor can it be recognised in any Australian collection (Houston & Watson 1988). It is unlikely to be a valid species. It is interesting to note that the only distinguishing features given by Billinghurst (1902) to distinguish between *Hemicordulia australiae* and *H. novaehollandiae* is that the latter lacks metallic markings on the frons and a tooth on the superior anal appendages. *Procordulia jacksoniensis* does not have the tooth on the anal appendages but does have metallic colouration on the frons. Martin (1901) includes *Somatochlora jacksoniensis* Rambur from Victoria as "apparently rare" but his local collector, Martin, does not list it for Alexandra, even though he does include the enigmatic *H. novaehollandiae*.

One other comment from Billinghurst (1902) is significant. "[*Hemiphlebia mirabilis*], a very small species, was only recorded from Queensland before I took it". Selys named this species in 1869 with the type locality of Port Bowen (Queensland). This location is extremely unlikely to be correct as the species is only known from Victoria and, relatively recently, Tasmania. Up until 1985 Alexandra was the only known site for *H. mirabilis* and it would be reasonable to assume that the type came from there. However, we know that it was not collected by Billinghurst.

Although some nomenclatural changes have occurred, the remaining forty of Billinghurst's specimens are still recognised within the Victorian fauna, as the following table shows. Billinghurst's list is on the left and the classification scheme is that current in Martin's time. Current names are on the right.

Family I Libellulidae	
Sub-Family Libellulinae	
Diplax melanopsis Selys	*Diplacodes melanopsis*
Diplax nigrescens Martin	*Austrothemis nigrescens*
Diplax rubra Kirby	*Diplacodes haematodes*
Orthetrum caledonicum Brauer	*Orthetrum caledonicum*
Sub-family Cordulinae	
Cordulephya pygmaea Selys	*Cordulephys pygmaea*
Hemicordulia novaehollandiae Selys	
Hemicordulia australiae Rambur	*Hemicordulia australiae*
Hemicordulia tau Selys	*Hemicordulia tau*
Synthemis eustalacta Burmeister	*Synthemis eustalacta*
Synthemis guttata Selys	*Eusynthemis guttata*
Synthemis brevistyla Selys	*Eusynthemis brevistyla*
Synthemis virgula Selys	*Eusynthemis virgule*
Family II Aeschnidae	
Sub-family Gomphinae	
Austrogomphus guérini Rambur	*Austrogomphus guerini*
Austrogomphus gouldi Selys	*Hemigomphus gouldii*
Austrogomphus ochraceus Selys	*Austrogomphus ochraceus*

Sub-family Aeschninae	
Hemianax papuensis Burmeister	*Hemianax papuensis*
Aeschna brevistyla Rambur	*Adversaeschna brevistyla*
Planaeschna tripunctata Martin	*Spinaeschna tripunctata*
Planaeschna sagitta Martin	*Notoaeschna sagittate*
Planaeschna longissima Martin	*Austroaeschna unicornis*
Planaeschna multipunctata martin	*Austroaeschna multipunctata*
Austroaeschna parvistigma Selys	*Austroaeschna parvistigma*
Austroaeschna inermis Martin	*Austroaeschna inermis*
Telephlebia godefroyi Selys	*Telephlebia brevicauda*
Family III Agrionidae	
Sub-family Calopteryginae	
Diphlebia lestoides	*Diphlebia lestoides*
Sub-family Agrioninae	
Lestes leda Selys	*Austrolestes leda*
Lestes annulosa Selys	*Austrolestes annulosus*
Lestes analis Rambur	*Ausgtrolestes analis*
Argiolestes icteromelas Selys	*Austroargiolestes icteromelas*
Argiolestes grisea Selys	*Griseargiolestes eboracus* or *Griseargiolestes intermedius*
Synlestes weyersii Selys	*Synlestes weyersii*
Nososticta solida Selys	*Nososticta solida*
Isosticta simplex Martin	*Rhadinosticta simplex*

Ischnura heterosticta Burmeister	*Ischnura heterosticta*
Ischnura delicata Selys	*Ischnura aurora*
Pseudagrion cyane Selys	*Austroagrion watsoni*
Pseudagrion billinghursti Martin	*Pseudagrion billinghursti*
Xanthagrion erythroneurum Selys	*Xanthagrion erythroneurum*
Agriocnemis splendida Martin	*Agriocnemis splendida*
Hemiphlebia mirabilis	*Hemiphlebia mirabilis*

Billinghurst collected from the Alexandra region 85% of the dragonfly species then known for Victoria – Martin listing only 7 additional ones for the State. Another 7 were known at the time for Australia but not yet for Victoria. Twenty-one were still to be discovered or described. These numbers are summarised by Martin's sub-family classification in the following table:

	B	M	A	P
Libellulinae	5	1	4	2
Cordulinae	7	2		4
Gomphinae	3	2	2	2
Aeschninae	9			6
Calopteryginae	1			1
Agrioninae	15	2	1	6
	40	7	7	21

B = listed by Billinghurst for Victoria

M = listed by Martin for Victoria (based on his own and Selys's publications) but not by Billinghurst

A = listed by Martin for Australia but not for Victoria at that time

P = Described after Billinghurst's and Martin's papers.

Alexandra, at the turn of the nineteenth century, was a hot-spot for Victorian Odonata. Although its wetlands have suffered severe degradation since that time it may still hold a substantial fauna and warrants sampling.

References

Billinghurst, F.L. (1900). Notes on Australian dragon-flies. *Victorian Naturalist* **17**: 5-9.

Billinghurst, F.L. (1902). Some notes on the dragon-flies of the Alexandra District. *Victorian Naturalist* **19**: 24-28.

Houston, W.W.K. & J.A.L. Watson (1988). Odonata. In *Zoological Catalogue of Australia*, Vol. 6. W.W.K. Houston, ed., pp. 33-132. Australian Government Publishing Service, Canberra.

Martin, R. (1901). Les Odonates du continent Australien. *Mémoires de la Société zoologique de France* **14**: 220-228

Visit to the insect collection of Laurie Cookson.

Each year the Council attempts to schedule a visit to an entomological collection as one of its bimonthly evening meetings. On 21 October 2005 six members accepted Laurie Cookson's invitation to view his extensive collection at his home in Warrandyte (Peter Carwardine, Ian and Margaret Endersby, Doug Hilton, Axel Kallies, Peter Marriott).

Comprising over 14,000 specimens the collection included examples of most of the major taxa but concentrated on Laurie's major interests in moths, beetles, wasps, flies and earwigs. Needless to say, we did not view the whole collection but drawers specific to each person's interests were examined.

The Council, and those who attended, are grateful to Laurie and his wife for their invitation and hospitality for this excursion.

Pseudo-rarity in butterflies – some examples of geographical serendipity.

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Introduction

When I first became interested in butterflies I was entertained and assisted by the early accounts of Zoo Le Souef in the *Victorian Entomologist* describing his wanderings in several states in search of new material. Many in the butterfly fraternity can relate to long-distance travels in search of apparently mythical populations of interesting species. Sometimes such efforts are but poorly rewarded (at least in butterfly terms). This situation raises the question of rarity in Australian butterflies. Braby (2004) used four categories to indicate relative abundance of a species based upon an expected encounter rate of adults. He also indicates that few species of Australian butterflies are genuinely rare but may be rarely encountered, at least in some parts of their range.

One aspect of butterfly field experience even less well discussed in the literature of Australian butterflies is the contrast between temperate and tropical abundance, at least as experienced in the field. In temperate areas the common experience of seasonal abundance is pronounced and many Australian butterflies may be seen in very large numbers at the correct time of year (alpine satyrids for example). Life in the tropics is distinctly different, especially in tropical rainforest where *"common species are rare and rare species common"* Forsyth & Miyata, 1984). This is quite a nice way to typify field encounters in tropical rainforests where high species richness is offset by generally low abundance compared with temperate areas.

In this article I give examples of butterflies originally considered rare for which subsequent field experience led to a revised perspective. I suspect that in many parts of Australia similar experiences have been recorded. Many of the examples used are said by Braby to be uncommon or rarely encountered.

Observations

In northern Queensland in the late 1970s there were very few people with knowledge of butterflies and when Steve Johnson and I started working on the fauna we had to uncover a great deal of new information. We also took note of the records of those who had spent time in the region before us. For example, we were much assisted by others in our search for the life history of *Liphyra brassolis*, at that time considered a great rarity. An Ingham cane farmer (Herb Boswell) had described to us how, when and where he had uncovered larvae and invited us to look on one of his properties. We also followed up a lead from Waterhouse's historical collection site on Great Palm Island. Once aware of the circumstances that the colonies seem to prefer it was not so difficult to locate new areas (Johnson & Valentine, 1986).

One species that was supposed to be present in our region was *Hypochrysops digglesii* but we had not had any success in locating colonies. Professor John Kerr from Brisbane advised us that he had encountered colonies along the Giru-Woodstock road south of Townsville so we spent many hours taping likely trees in the hope of collecting juvenile stages. We had great success in providing homes for crickets, frogs and spiders but no sign of *H. digglesii* adults or larvae. We were mystified. Eventually, while rearing *Ogyris zosine* from some large colonies we had discovered near Woodstock, we also sighted adult *H. digglesii* for the first time. Up until then we would have been easily convinced that the species was rare in our district. The ultimate irony was that, had we but known, the species was (and is) widespread throughout suburban Townsville. In my own garden there are several colonies of *H. digglesii* that have been present for many years now.

A similar situation prevailed with regard to the so-called Rare Redeye (*Chaetocneme denitza*). This large and ornate skipper was at that time represented in collections by very few individuals (hence its common name) and we were keen to find a local population. Initially we searched along the Ross River on the *Lophostemon grandiflora* trees. Having seen shelters of the other species in the genus we knew what to expect and we were eventually successful in finding some shelters and one or two with larvae still present. Cause for celebration. However, as we returned to these sites in successive years we found very few shelters and we finally concluded that there must be another plant being used. In the meantime my wife had located adults on two or three occasions in our mango orchard and this suggested the species was perhaps not as rare as implied. Once we realised that the principal plant used by the species in northern Queensland is *Planchonia careya* (the common cocky apple tree) I was astonished to find numerous larvae in our garden. We have many cocky apple trees forming part of the understory of the native vegetation, some original and others that I subsequently grew from seed and planted. There was one shrub with larvae on it just two metres from the back stairs. At the time when we were still looking for our first larva I must have walked by many in my own garden.

Another interesting example of pseudo-rarity is the Orchid Tit (*Hypolycaena danis*). Many years ago I made several trips to Cairns where I spent time searching through orchid growers' shade houses (at least those who did not use chemical sprays). One grower agreed to stop "squashing the grubs" if I notified him when I was couing and would take all the larvae away. Some years later I recorded this species in Townsville for the first time and have subsequently collected or seen several individuals in my own garden. They continue to breed in Townsville. Recently they were discovered breeding on *Phaius tancarvilleae* (Orchidaceae), a ground orchid growing in a Townsville garden. This is the first record of *Hypolycaena danis* using a ground orchid as a larval food plant.

An example of geographical serendipity is my experience with the large nymphalid butterfly *Youna sabina*. In the 1970s this was considered a very elusive species and when I learned that adults were sometimes seen at Cooktown I packed up the family and we took a camping trip. We stayed at the Caravan Park at the base of Grassy Hill and in the wetlands nearby eventually saw and caught a few adults. Of additional interest was a meeting with Berry Vardy and his family, a

Victorian butterfly collector with similar ideas but rather further from home. Later, as I explored the Cape York Peninsula environments, I realised that this species is abundant on the peninsula through the wet season. We also found very large over-wintering aggregations at Iron Range (many hundreds on one occasion occupying Cook's Hut at Iron Range in July). Last year I collected and saw several individuals in my garden in Townsville, a new southern record (Valentine, 2004). I have established in my garden many butterfly larval food plants including large areas of *Ruellia* sp (a food plant for the Brown Soldier (*Junonia hedonia*). This plant also supports *Youna sabina* so it is not surprising that the species has persisted in my garden since. It has also been seen in other suburbs and at Paluma (Valentine, 2005). It will be interesting to see whether it has permanently expanded its range (perhaps like *H. danis* and *Tagiades japetus*, another species now in my garden).

An interesting and elusive species of lycaenid is *Zizula hylax*. This smallest of all our butterflies has long been considered uncommon or rare and certainly we never saw it in the late 1970s in northern Queensland. The first specimen I collected was in June 1981, one day before I left Townsville for a year working in the USA. On return I was unable to relocate it until many years later when I realised that we have an extraordinary large and permanent population in our garden on the banks of the upper Bohle River. What supports this population is the same extensive areas of *Ruellia* sp mentioned above. It was while observing and rearing this species in our garden that I realised the simplest way to identify it on the wing in the field (Valentine, 1996). It remains one of the commonest species on our property and is present all year round.

In 1983 I spent three weeks on Cape York Peninsula and encountered *Deudorix demodes* for the first time. This was on its food plant along the Kennedy River west of Fairview where it had been discovered by Arnie Johnson (Steve's father). It was considered a rarity at that time. However, the following year I was working on a research project in Lakefield National Park and while camped there discovered literally hundreds of food plants growing on the edges of lagoons and along rivers and streams throughout the park. Each tree was loaded with fruits and these were being avidly consumed by Great Bower Birds – I think selectively taking nuts that had larvae in them. In any event I was able to rear numerous specimens including a series donated to the ANIC. The species remains abundant at the right time of year (July) depending on the fruiting of the food plant, *Strychnos lucida*.

The small lycaenid *Zetona delospila* (aka *Candalides delospila*) utilizes as its food plant a dodder laurel (*Cassytha* sp) growing in spinifex country. In 1980 a colleague showed me a photograph of a butterfly taken at Porcupine Gorge National Park in western Queensland that he wanted me to identify. It was clearly this species, at that time unknown to me. I took a trip to the area in 1981 and located a colony. Over the following 10 years or so just an occasional new location would turn up during passing visits through western Queensland and elsewhere (Valentine, 1996). In 2001 Steve Johnson and I spent an extended period in northwestern Australia and whenever we were in spinifex country we quickly located extensive colonies of this species (Johnson and Valentine, 2004). We have experienced a similar pattern with the spinifex skipper *Proeidosa polysema*. These are strongly associated with sandstone areas of spinifex and until we worked out this association we considered the species rare and spent a lot of fruitless hours in the hope of finding colonies. *Trapezites macqueeni* is another skipper considered uncommon and in the early 1980s we would collect the occasional specimen on hills west of Paluma in northern Queensland.

As we extended our areas of collection and began to identify the precise areas of the landscape preferred and the larval food plants, we found many new locations and were able to readily and predictably locate colonies.

A butterfly confined in Australia to Cape York peninsula is the Palmfly (*Elymnias agondas*). It always seemed uncommon at Iron Range with just an occasional individual seen. Later however we discovered that fermented fruit baits would rapidly produce adults and we were able to rear them very easily on any number of palms. When we were trying to trap species like *Charaxes latona* and *Apaturina erminea* we always ended up with a trap full of palmflies. Another case of psuedo-rarity is the large lycaenid *Danis danis*. After much unsuccessful searching at Iron Range and elsewhere for the northern subspecies we eventually realised that its main habitat is deep within the canopy of prime tropical rainforest – a place often avoided by butterfly collectors because of the apparent absence of sunshine and butterflies. Once we stepped in through the edge of the forest (where most species occur) and spent time under the canopy we encountered *Danis danis* and other species we had long believed rare. These included *Telicota brachydesma* (a species we had never seen until after we discovered its life history) and *Rachelia extrusa* (Valentine & Johnson 2000, 2004).

The Cycad Blue (*Theclinesthes onycha* is commonly found in the foothills surrounding Townsville where native cycads occur, however I had not observed it within the Townsville urban areas. I recently planted wild-collected seeds in the garden and these are now growing well. In November 2005 fresh growth on these plants in our garden had numerous eggs and larvae of *T. onycha*, yet another addition to the Townsville urban landscape!

Conclusions

While there are certainly variations between species in the relative abundance of individuals, the genuinely rare butterfly is unusual. Apparent rarity is very often a case of inadequate field knowledge and provides a valuable challenge for field naturalists to focus upon. One way to achieve this is by deliberately investigating new and different locations rather than returning to places where species have previously been known. Steve Johnson and I have concluded from our field experiences that perceived rarity in butterflies is more often than not a matter of looking in the wrong place or at the wrong time. Over the many years of our field observations, most species that start off in our view as "rarely encountered" only stay that way until we uncover their life history. It is at that time that we are able to make much better predictions of where and when to search and we then frequently notice the species much more commonly in our field activities.

References.

Braby, M.F. 2004 *The Complete Field Guide to Butterflies of Australia.* CSIRO, Melbourne. 339pp.

Forsyth, A. and Miyata, K. 1984 *Tropical Nature.* Charles Scribner's Sons, New York. 248pp.

Johnson, S.J. and Valentine, P.S. 1986 Observations on *Liphyra brassolis* Westwood (Lepidoptera: Lycaenidae) in North Queensland, *Australian Entomological Magazine* 13(1,2):22-26.

Johnson, S.J. and Valentine, P.S. 2004 Butterfly field notes from northwestern Australia including new distributions of several species. *Victorian Entomologist* in press

Valentine, P.S. 1993 Urban Butterflies: a provisional list for Townsville *News Bull Ent Soc Queensland* 21(9):160-164

Valentine, P.S. 1994 Backyard butterflies in northern Queensland: the late dry season; *Victorian Entomologist* 24(2):38-41

Valentine, P.S. 1996 Additional locations and field notes for *Zetona delospila* (Waterhouse) *Victorian Entomologist* 26(6):117

Valentine, P.S. 1997 Field recognition of the tiny grass blue butterfly, *Zizula hylax attenuata* (T.P. Lucas), *Victorian Entomologist* 27(4): 80.

Valentine, P.S. 2004 A significant southern extension of *Youna sabina parva* (Butler) Lepidoptera: Nymphalidae. *Entomological Society Queensland News Bulletin* 32(5):115-116.

Valentine, P.S. 2005 Persistence of *Youna sabina parva* (Butler) Lepidoptera: Nymphalidae in the Townsville region. *Entomological Society Queensland News Bulletin* 33(4):72-74.

Valentine, P.S. and Johnson, S.J. 2000 The life history of *Telicota brachydesma* Lower (Lepidoptera: Hesperiidae) *Australian Entomologist* 27(4):103-108.

Valentine, P.S. and Johnson, S.J. 2004 The life history and distribution of *Rachelia extrusa* (C. & R. Felder) (Lepidoptera:Hesperiidae:Trapezitinae) in Australia. *Australian Entomologist*: 31(1): 29-36

Some New Butterfly Observations for Central Australia

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Introduction

This paper is a follow-on report to an earlier survey undertaken by the author during the period 21-28 September 2004 in the Dalhousie Springs area in the Far North of South Australia, that was unexpectedly curtailed. The results of that trip were reported by Grund 2005. The present trip was undertaken during 17-24 September 2005, and concentrated on the Stuart Highway north of Coober Pedy and the border areas west of the highway between South Australia and the Northern Territory. The preceding winter rainfall for the area was reasonable, with most of it falling in the Musgrave Range area and adjoining areas in the Northern Territory.

Some of the more notable butterfly observations are summarised as follows.

HESPERIIDAE

Croitana arenaria: On previous trips to this region in 2000-2001 (Grund and Hunt 2001), this skipper was seen to be reasonably common. During the current trip considerable effort was employed to again find evidence for this skipper, both in the creek lines north of Coober Pedy and in the border areas, but only one skipper (male) was seen flying, and only one shelter was seen, which contained a parasitised larva. Both specimens were from along the Stuart Highway. The windmill-grass hostplant (*Enteropogon acicularis*) was greening nicely in the creeks along the Stuart Highway, and were in good condition in the border areas. In the former areas much of the hostplant had been overgrazed by cattle, but in areas under aboriginal control the grass, although often in a rank condition, still had green growth. One can only surmise that there had been a major population collapse of this skipper during the dry years of 2002-2005. (Immediately subsequent to this survey, the area had prolific rainfall during October).

Proeidosa polysema: One of the main reasons for the survey was to determine if this skipper was present in the region, particularly in South Australia. Previous studies of herbarium records had determined that one of its known hostplants (*Triodia pungens*) occurred in the region, and adults had been documented from near Alice Springs (Common & Waterhouse 1981). During the survey it was found that the *Triodia* was very common in the Amata (South Australia) to Mt Connor (Northern Territory) area and had been documented further north of Mt Connor although the latter was the limit of this survey. The plant grew in open woodland where red-dunes proliferated, where it was present on both the dunes and in the swales. In this habitat, it was the only *Triodia* seen growing. It was not seen in sand-plain or rocky hill areas east of the area above, such as east of Amata in the border areas, where it was replaced by larger growing species of *Triodia* having more pungent leaves. *Triodia pungens* is a low growing plant, usually below ½ m, with bright green, pliable, sticky, non-bifurcating, almost terete leaves.

Only males of the skipper were seen, which were common and in new condition, implying a recent emergence, and they were only seen on dune tops. An effort was made to find early stages, and a few shelters were seen, mostly on small, young plants growing along the ridges of the dunes. They contained no living larvae or pupae. No eggs were seen. Presence of young *Triodia* plants regrowing after a fire was not a prerequisite for the skipper, as the skippers were found in areas of both new growth (after fire) or where the *Triodia* was old, rank and growing in *Triodia* circles. The skippers only flew (or were present on the dunes) during full sun. There was active competition between males for territorial resting sites on the dune tops (leeward side of the wind direction) where they rested on twigs or similar debris close to the ground. None were seen patrolling in the swales. Most of the males seen were the large-spot form, although some had small spots and were flying with the former. The hindwing undersides were suffused dull-yellow. The males were in constant aerial battles with other male skippers of its species and also with just about anything else that flew within their perceived territories. The implications from this survey are that the flight season had only just begun, with the males flying early, to be followed later by the females, suggesting a similar flight pattern to its closely related relatives, *Herimosa albovenata* and *Croitana arenaria pilepudla* in temperate areas.

Based on the known distribution of *Triodia pungens* through the use of herbarium specimens, and on the relative frequency at which the skipper was observed during this survey, it is likely the skipper would occur throughout the Northern Territory, the northern half of Western Australia and the northwest corner of South Australia. If its other known hostplants are included then its distribution would also likely include much of Queensland and possibly even northern NSW provided there was no biological impediment.

Taractrocera anisomorpha: No evidence for this skipper was seen during the survey. It had previously been seen along the Indulkana Creek during 2002. During this survey this creek was still suffering from the effects of the previous dry period. There was some greening of its windmill grass hostplant, but flowering plants were almost absent.

LYCAENIDAE

Candalides heathi heathi: This blue, although uncommon, was seen in the border area north of Ernabella (where it was associated with a hostplant Bluerod (*Stemodia florulenta*), and again near Mt Connor Homestead. The upperside blue areas of the females varied between dull purple and bright blue.

Cyprotides cyprotus: Two newly emerged males were seen flying on a dune-top situated between Mulga Park and Mt Connor Homesteads. They flew or rested on twigs below about 1 m in height, but were in constant aerial battles with other male butterflies on the dune top, particularly *Ogyris amaryllis* and *Theclinesthes miskini*. Some effort was spent in trying to elucidate the hostplant, but no females were seen flying and only two possible Proteaceous or Leguminous hostplants were seen in the vicinity. They were the small tree-grevilleas *Grevillea stenobotrya* and

Grevillea juncifolia. Only the latter was in flower and it was presumed to be the possible host, although on examining the flowers no evidence for early stages of the butterfly was seen and there was no ant activity on the sticky flowers. Irrespective of these two plants, there are a further six possible Proteaceous hostplants (*Grevillea* and *Hakea* species) known to occur in the area. Based on this recording it is now likely this butterfly has a much more extensive distribution range into arid-semiarid Australia as its possible hostplants are widespread and locally abundant, and the butterfly itself has adapted to this type of habitat with its pupae being able to aestivate and delay development for periods of up to 2 years or more.

Both butterflies were pale on the undersides with very indistinct markings, while the uppersides were similar to those forms found in temperate areas of South Australia some 800km further to the south. A comparison of the genitalia from the above specimens with specimens from Western Australia, South Australia and Sydney did not show any major differences.

Jalmenus icilius: This blue was observed throughout the survey area, and was sometimes locally very common, with one colony on the border north of Ernabella extending over 1 hectare. The main hostplants noted were *Acacia victoriae* and *Acacia tetragonophylla*, but early stages were also sometimes seen on *Senna artemisioides petiolaris* and *Acacia aneura*. Pupal activity was in the outer parts of the foliage in communal groups up to about 4 pupae, and the pupae either occurred in black or pale brown colours. Attendant ants were the usual small black *Iridomyrmex* ants. The *Acacia aneura* (mulga) hostplants were immature types to 3 m, having a high density of orange gall along the branches. Larvae of the butterfly were often seen to be eating the waxy coating of this gall in preference to the foliage. Only green larvae were seen. Females were polymorphic, having either the usual blue coloured uppersides, or green coloured like the males. Both sexes tended to be common around the hostplants, but males were sometimes seen to be hill-topping on the tops of the high, rocky hills in the region.

Ogyris amaryllis meridionalis: This butterfly was seen wherever its *Amyema* hostplants were present. A new hostplant record was the mistletoe *Amyema gibberulum* var. *gibberulum* growing on the large tree-hakea (*Hakea suberea*) that occurred on the border north of Ernabella. The usual hostplant mistletoes noted in the area were *Amyema maidenii maidenii* (usually parasitizing Mulga, but sometimes on other wattles) and *Amyema preissi* (on wattles). Unfortunately it was not realised until it was too late that three other *Amyema* mistletoes were also present in the region, two of which are very similar in appearance to *A. maidenii*, and so that chance was lost to determine if they also were hostplants, although it is suspected this butterfly utilises all species of *Amyema*.

OTHER BUTTERFLIES

Other butterflies seen during the survey were the usual common inland types: *Belenois java* (flying east), *Eurema smilax*, *Vanessa kershawi*, *Junonia villida*, *Danaus chrysippus*, *Lampides boeticus*, *Nacaduba biocellata*, *Theclinesthes miskini*, *Zizina labradus*.

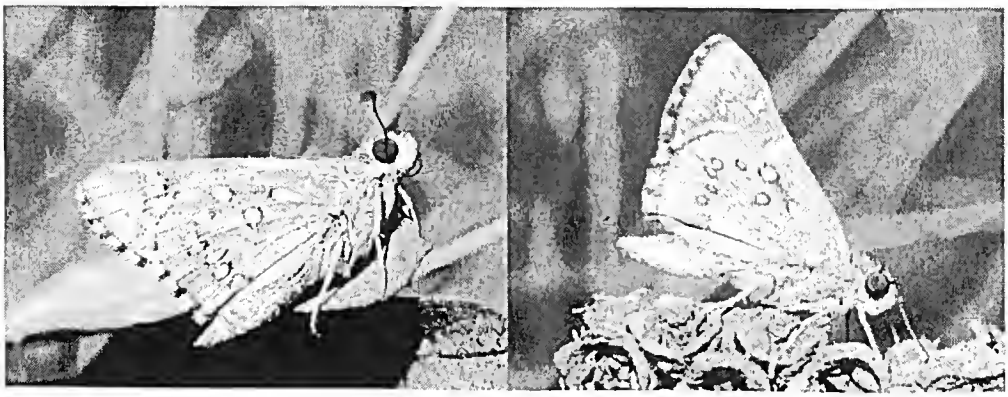
References

BRABY, M.F. 2000. *Butterflies of Australia.* Vol. I & II. 976pp. CSIRO Publishing, Melbourne.

COMMON, I.F.B. and WATERHOUSE, D.F. 1981. *Butterflies of Australia.* 682pp. Angus and Robertson, Sydney.

GRUND, R. 2005. Butterfly survey of the Dalhousie Springs area. *Butt. Conserv. SA Newsletter.* **21**: 1-3.

GRUND, R. and HUNT, L. 2001. Some new butterfly observations for the Far North and pastoral regions of South Australia. *Vict. Ent.***3** 1(5): 75-82.



Proeidosa polysema males from survey area, large-spot form on left, small-spot form on right.

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SYSTEMATICS

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DIARY OF COMING EVENTS

Friday 9 December 2005 General Meeting - Members Night
Members and visitors will give short talks and slide presentations including Kelvyn Dunn:.
'Video presentation on butterflies of Sabah, Malaysian Borneo.'.
Please bring a plate to share.

Friday 17 February 2006
Dr. Ross Field will present a talk on
'The Biology of Some Unique Butterflies from Eastern Victoria'

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